

# SHUNGNAK

## Health Clinic



## Alaska Rural Primary Care Facility

### Code and Condition Survey Report

July 23, 2001



## **I. EXECUTIVE SUMMARY**

### **Overview**

The Shungnak Clinic was constructed in 1978 and is an older prototype clinic similar to many others in the Kotzebue region. A modest addition was placed on the back of the clinic which is used for overflow office and supply space and also serves as a sleep area. As can be seen from the attached commentary, the cost of renovations, combined with the cost of a new addition would exceed the cost of building a completely new clinic to Alaska Rural Primary Care Facility standards. The community has recommended relocating the existing clinic to a new site and converting it to an alternative use. The new clinic would be constructed on the existing site.

### **Renovation and Addition**

The existing clinic is 1284 s.f. and would require an addition of 716 s.f. to meet the 2000 s.f. minimum area recommended by the Alaska Rural Primary Care Facility study. The floor plan layout would require the remodel of approximately 75% of the interior space. Additionally, the poor condition of the building will require extensive upgrades to improve the foundation, thermal enclosure and other building systems. The cost of required renovations and code upgrades, combined with the cost of a new addition equal 118% of the cost of a new clinic.

### **New Clinic**

Because the cost of renovation and addition is more than 75% of the cost of new construction, a new clinic of at least 2000 s.f. should be built to replace the existing clinic. The community has identified a proposed location to build the new clinic, if approved. The proposed site is near utilities, the school, and other community services and is of adequate size to accommodate a larger structure.

## **II. GENERAL INFORMATION**

### **A. The Purpose of the Report**

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility (ARPCF) assessment, planning, design, and construction. The purpose of the Code and Condition Survey Report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need among the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information gathered will be tabulated and analyzed according to a set of fixed criteria that will yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most practical and cost effective means to bring the clinics up to a uniform standard of program and construction quality. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 1 and 2.

### **B. The Assessment Team**

The survey was conducted on May 21, 2001. John Crittenden, AIA, Architects Alaska and Bill Henriksen, PE, RSA Engineering completed the field inspection for this project. Mark Anderson of ANTHC and Jim Howell of Maniilaq Association were the team escorts. Mark reviewed alternative site locations with village leaders. Jim is an Environmental Health Specialist for the region and this trip accounted for one of his scheduled community visits. Both Mark and Jim knew the village contacts personally and made introductions and conducted the village briefings. Team members who assisted in the preparation of the report included Stephen Schwicht and Ian VanBlankenstein of NANA/DOWL, project managers for the survey team, and Jay Lavoie of Estimations, Inc.

### **C. The Site Investigation**

The format adopted is similar to the “Deep Look”, a facility investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. This written report includes a floor plan of the clinic and a site plan indicating the existing clinic site. Additional information gathered during the site investigation that is referred to in the report, which includes sketches of building construction details, a building condition checklist, and proposed plans for village utility upgrades, are not included with this report. This information is available for viewing at ANTHC’s Anchorage offices and will be held for reference.

### **III. CLINIC INSPECTION SUMMARY**

#### **A. Community Information**

The community of Shungnak has a current population of 256 as published in the 2000 U.S. Census. It is located 150 miles east of Kotzebue in the Kotzebue Recording District. It is a part of the NANA Regional Corporation. Refer to the attached Alaska Community Database prepared by the Alaska Department of Community and Economic Development in Appendix C for additional information on the community.

#### **B. General Clinic Information**

The Shungnak Clinic plan is a prototypical design replicated in at least four other villages surveyed. The clinic was constructed in 1978. Although some of these clinics have been remodeled, the Shungnak Clinic is essentially the same plan as originally constructed. This original building is approximately 816 s.f. in size and is constructed of conventional frame walls, floor, and roof. It has a 468 s.f. addition to the back. It has a total area of 1284 s.f. which makes it 716 s.f. less than the ARPCF minimum of 2000 s.f. for a medium-sized clinic. The structure's roof, walls, and floors currently have half the insulation recommended for a facility at this location.

#### **C. Program Deficiency Narrative**

There are three health care workers at the Shungnak Clinic, including a supervisor. The clinic addition was built to relieve overcrowding, however, the addition is not fully utilized, consisting of two large rooms containing beds, storage and Telemed equipment and supplies. The original building plan provides a separated waiting area, a reception window separating administrative areas from the public, a common use toilet located between clinic rooms and the public waiting area, with the more private spaces used for exams. The added room never relocated any work functions. The administrative personnel working in the clinic have taken up workspace in the addition because of crowded conditions in the original clinic. Consequently the addition serves as kind of an “annex” not wholly integrated into the plan. This clinic needs to be reevaluated to determine what reallocation of spaces could serve to encourage a more efficient and productive health care delivery process.

The following table illustrates a comparison between the current actual square footage (SF) and the 2000 s.f. minimum area recommended by the Alaska Rural Primary Care Facility study for a Medium Clinic:

**Table 1 – ARPCF Clinic Area Comparison**

<b>Purpose/Activity</b>	<b>#</b>	<b>Existing Net SF</b>	<b>#</b>	<b>ARPCF Medium</b>	<b>Difference</b>
Arctic Entry	1	82	2	2 @ 50=100	18
Wait/Recep/Closet	1	90	1	150	60
Trauma/Telemed/Exam	2	170	1	200	30
Office/Exam	1	125	1	150	25
Admin./Records	2	120	1	110	-10
Pharmacy/Lab	-		1	80	80
Portable X-ray	-		-	-	-
Spec. Clinic/Health Ed./Conf.		170	1	150	-20
Patient Holding/Sleep Room	-		1	80	80
Storage	1	22	1	100	78
HC toilet	1	36	2	2 @ 60=120	84
Janitorial Closet	-		1	30	30
Total Net Area				1270	
Mechanical Room		50		147	97
Ancillary		Kitchen - 125		30	-95

The Shungnak Clinic has a current gross area of 1284 s.f. This would require a gross building area expansion of approximately 716 s.f. to meet the 2000 s.f. minimum ARPCF requirement for a Medium clinic.

An analysis of the existing building's program functions follows. Please also refer to the floor plan in Section H:

- **Arctic Entries:** The front door has an arctic entry which is nominally 4' x 5'. This is inadequate to accommodate a stretcher. The back vestibule is more accommodating, however, neither entry is served by a ramp. Doors are only 36" wide, a difficult width for emergency stretcher access.
- **Waiting:** The waiting area is a small area for 6-8 persons designed into the original plan. It is too small for the current population's needs.
- **Trauma/Telemed/Exam:** The addition consists of one 16' x 24' space with a partial wall dividing the two halves. One half is used for a sleep area and contains the telemed equipment, a bed, a desk and a Toyo stove. The other half contains a bed, a TV set, a

sofa, and storage cabinets. One of these two areas would be used in the event of a trauma, however, neither is equipped to handle trauma patients in their current configuration.

- **Office/Exam:** The main clinic exam room is the original exam room in the older portion of the clinic. It is a properly sized exam room with an exam table located directly opposite the reception area.
- **Administration/Records:** Administrative work areas are spread around the clinic with some of the employees working in the back near the Telemed equipment and in the break area. The main reception station has a small adjacent office niche which is a self contained office for one of the clerks.
- **Pharmacy/Lab:** The lab space is not centralized into a single place. This seems to be a situation that occurs in most small clinics. A designated space is usually set up in one of the exam rooms. The main older exam room contains most of the lab procedure equipment.
- **Specialty Clinics:** The entire addition could be used for specialty clinics as it is currently underused.
- **Patient Holding/Sleep:** There are two beds and a sofa in the clinic, located in the addition.
- **Storage:** All the storage for the clinic is contained in 36-inch wide tall storage cabinets located throughout the building, but concentrated in the addition.
- **HC Toilet Room:** The toilet room is undersized for handicapped access. One of the deficiencies addresses enlarging this room to provide appropriate interior dimensions.
- **Janitor Closet:** The original mechanical room contains the original boiler. Heat for the addition is provided by a Toyostove.
- **Ancillary Spaces:** The kitchen/break room at the front of the clinic is a very underused space. It could serve as a secondary exam, but this has not been considered in favor of leaving the space as it was originally designed. It might be appropriate to switch the location of the waiting area and the kitchen, based on space need and usage.

#### **D. Architectural/Structural Condition**

The building structure is in relatively good condition, considering its age. To adequately address the thermal requirements of a building in this climate, given the extreme cold, and high cost of fuel, the roof, walls and floor should have additional insulation. This project would consist of essentially wrapping the building in rigid foam and applying new siding, roofing and soffit materials. Three-inch rigid insulation over the existing roof would be adequate, replacing

the metal roofing in the process. The walls should be furred with 1.5” rigid insulation, ice and water shield, and new siding. The floor should be reinsulated with 3.5” foam panels fit between the beams and placed with sealant and joint trim. The floor requires new subfloor and sheet flooring to smooth over the irregularities which cause chipping and deterioration.

The suspended ceiling is in relatively good shape. Exterior ramps require replacing due to poor initial construction and non-compliance with ADA guidelines. Additionally, the interior casework and furnishings is very modest and not constructed with health care in mind. Much of the furniture should be replaced to provide good functional workstations and efficient filing. Also, medical supply storage and new casework should be purchased to improve the utilization of health care spaces.

#### **E. Site Considerations**

The existing clinic is in a very good location. There is space around the building for an addition, or for a larger structure. The existing facility could be relocated elsewhere for an alternative use.

Site utilities include village water, sewer, power, and telephone service directly to the building. The sewer system had been frozen most of the winter but had been thawed the same day as the inspection. The freezing of the sewer system was reported as an annual event.

The community has identified a proposed location to build the new clinic if a replacement clinic is recommended by the investigation. The proposed site is located near the water treatment plant, the washeteria, and other community services. It is also located less than a block from the existing school building.

#### **F. Mechanical Condition**

**Heating and Fuel Oil:** Heating in the old section of the building is provided from a Burnham Model V-1 4A-T boiler with a single zone of baseboard installed around the perimeter of the building. The building addition is heated with a Toyostove Laser 72. The boiler has not been well maintained and the baseboard is in poor condition. The Toyostove provides only a single zone of heating and requires doors of adjacent rooms to remain open to stay warm. That is a problem in rooms that require privacy or security. The Toyostove in the new part of the building should be replaced with additional zones of baseboard. Additional zones of baseboard should also be considered in the older section of the building to provide better control of the heating. A 55-gallon fuel tank on the outside wall of the building serves the Toyostove and a 260-gallon oval tank supplies the boiler. The 55-gallon fuel tank should be replaced with a properly vented, piped and supported UL-listed tank. The 260 gallon tank needs to be relocated, resupported and have its piping replaced and supported. Specific code issues are listed in the Deficiency Evaluation and Cost Assessment forms.

**Ventilation:** There is no ventilation serving the building except for an exhaust fan in the restroom. The restroom exhaust fan is a pull chain style fan that mounts directly in the outside

wall. It was operable but is not an appropriate fan to serve in the type of climate it has been installed. The range in the kitchen is supplied with a recirculating exhaust hood. It should exhaust directly to the outside wall. The clinic needs to be provided with a mechanical ventilation system and should not rely on operable windows alone.

**Plumbing:** Cold water is provided into the clinic from the village water supply and hot water is generated on site from a side arm heater off the boiler (this is a single wall heat exchanger that does not meet the current code requirements for separation between a glycol system and domestic water system). The waste line for the building flows by gravity to the village sewer system. The crawl space was inaccessible, so we were unable to check the condition of the waste piping below the building. The sewer system froze early the previous winter and had been thawed just prior to our inspection. The winter freeze-up of the sewer system is reported to be a chronic problem that occurs annually. Plumbing fixtures in the clinic include a toilet, lavatory and bathtub/shower combination in the restroom and a double compartment sink in the kitchen area and a single compartment sink in the exam room. The fixtures in the restroom do not meet ADA requirements. The lavatory in the restroom is fitted with hose threads for filling the mop bucket, but is not equipped with a vacuum breaker or back-flow device, which are required by code to help prevent cross contamination of the domestic water system.

#### **G. Electrical Condition**

**Power:** 120/240-volt single-phase power is provided to the clinic's electrical meter from an overhead service. The main breaker size at the meter is 100-amps and serves the 125-amp building panel. The system appears to be grounding properly with a wire extends from the meter base down along the side of the building to a grounding rod. The electrical panel appeared neat and orderly, but there is an open knock-out that needs to be filled. The electrical panel has room for 24 breakers, 15 breakers were installed and there were no spares. Most of the wiring from the panel has been done in Romex and all conductors are copper. The number of receptacles inside the building are appropriate and no plug strips were observed. Two GFCI breakers were located in the panel, but we could not confirm that they protected the receptacles near the restroom, kitchen, or exam room sinks. There were two weatherproof receptacles located on the outside of the building. Specific code issues are listed in the Deficiency Evaluation and Cost Assessment forms.

**Lighting and Emergency Fixtures:** All light fixtures in the building are florescent using 35 watt 40F lamps. Fixtures in the oldest section of the building were four lamp fixtures recessed into the suspended ceiling. The newer section of the building has two lamp surface mounted fixtures. The recessed fixtures are in fair shape, but two of the fixtures had the lamp covers missing. The lighting levels in the building appeared acceptable, but were not measured. Light fixtures should be replaced at the time that the building is renovated. Exterior lighting was provided with incandescent fixtures at the entrances only. The fixtures were generally in poor condition with most of the covers missing over the bulbs. It is recommended that all fixtures be replaced. There are no emergency light fixtures in the building. They need to be added near the exits. Each exit had a metal exit sign located over the doorway. The metal exit signs should be replaced with lit exit fixtures. Battery type smoke detectors in most rooms, but the



one in the waiting area and one of the exam rooms were suspended from nails located on the walls.

**Telecommunications:** Three phone lines serve the building, one for the local incoming line, one for a fax line and a dedicated line for communication with the Kotzebue Hospital. A Telemed system was also recently installed.

**H. Existing Facility Floor Plan**

See following sheet for the floor plan of the existing clinic.

**J. Community Plan**

Refer to the attached community plan for location of the existing clinic and the proposed location for the new clinic. If the existing clinic site is the preferred location or if a new site has not yet been selected, only the existing clinic location will be shown.

#### IV. DEFICIENCY EVALUATION AND COST ASSESSMENT

The attached deficiency reporting forms are based on Public Health Service form AK H SA-43. The forms are numbered sequentially for each discipline starting with **A01** for Architectural and structural deficiencies, **M01** for Mechanical deficiencies and **E01** for Electrical deficiencies.

##### A. Deficiency Codes

Deficiencies are further categorized according to the following PHS Deficiency codes to allow the work to be prioritized for federal funding, should that apply. Deficiency codes used in this survey include:

- 02 Fire and Life Safety:** These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated building codes including the International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code.
- 03 Safety:** These deficiencies identify miscellaneous safety issues.
- 04 Environmental Quality:** This addresses DEC regulations, hazardous materials and general sanitation.
- 05 Program Deficiencies:** These are deficiencies which show up as variations from space guidelines established in the Alaska Primary Care Facility Facility Needs Assessment Project and as further evaluated through observation at the facility site and documented in the facility floor plans.
- 07 Disability Access Deficiencies:** The items with this category listing are not in compliance with the Americans with Disabilities Act.
- 08 Energy Management:** These deficiencies address the efficiency of heating systems/fuel types and the thermal enclosures of buildings.
- 11 Structural Deficiencies:** These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.
- 12 Mechanical Deficiencies:** These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems.
- 13 Electrical Deficiencies:** These are deficiencies with electrical generating and distribution systems, fire alarm systems and communications systems.
- 14 Utilities:** This category is used for site utilities, as opposed to those within the building and may include sewer lines and water and power distribution.

## **B. Photographs**

Each sheet has space for a photograph. Some deficiencies do not have photos. Photographs do not cover all areas where the deficiencies occur but are intended to provide a visual reference to persons viewing the report who are not familiar with the facility. Additional photographs of the clinic and the surrounding area are included in Appendix B.

## **C. Cost Estimate General Provisions**

### **New Clinic Construction**

- **Base Cost**

The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

- **Project Cost Factors**

Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.

Design Services is included at 10% to cover professional services including engineering and design.

Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Estimated Total Project Cost of New Building**

This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

**Remodel, Renovations, and Additions**

- **Base Cost**

The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

The cost of Additions to clinics is estimated at a unit cost higher than New clinics due to the complexities of tying into the existing structures.

Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.

- **General Requirements Factor**

General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Contingency for Design Unknowns (Estimating Contingency)**

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

- **Estimated Total Cost**

This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

- **Project Cost Factors**

Similar to new clinics, the following project factors have been included in Section VI of this report.

Design Services is included at 10% to cover professional services including engineering and design.

Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Estimated Total Project Cost of Remodel/Addition**

This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

**V. SUMMARY OF EXISTING CLINIC DEFICIENCIES**

The attached table summarizes the deficiencies at the clinic and provides a cost estimate to accomplish the proposed modifications. If all deficiencies were to be addressed in a single construction project there would be cost savings that are not reflected in this tabulation. The total cost of remodel/addition shown in Section VI is intended to show an overall remodel cost that reflects this economy. Refer to Section VI for a comparison of remodel/addition costs to the cost of new construction. The specific deficiency sheets are included in Appendix A



## **VI. NEW CLINIC ANALYSIS - SHUNGNAK**

The decision on whether to fund new clinic construction or a remodel/addition of the existing clinic is to be determined by comparing the cost of a new facility designed to meet the program requirements of the Alaska Rural Primary Care Facilities minimum area requirements with the projected combined cost of renovating, remodeling and adding onto the existing building to provide an equivalent facility. If the cost of the remodel/addition project is greater than 75% of the cost of constructing an altogether new facility then a new facility is recommended. That ratio is computed as follows:

- **The cost of a new clinic in Shungnak is projected to be:**

Base Anchorage Cost per s.f.	\$183/ s.f.
Medical Equipment Costs @ 17%	\$31
Design Services 10%	\$18
Construction Contingency 10%	\$18
Construction Administration. 8%	\$15
Sub-total	\$265/ s.f.
Area Cost Factor for Shungnak 1.52*	
Adjusted Cost per s.f.	\$404/ s.f.

**Total Project Cost of NEW BUILDING 2,000 x \$404 = \$808,000**

- **The cost of a Remodel/Renovation/Addition is projected to be:**

Projected cost of code/condition renovations (From the deficiency summary)	
90% of cost of code/condition improvement**	\$256,209 Renovation
Projected cost of remodeling work (See A09)	
1,284 s.f. clinic @ 100% remodel = 1,284 s.f.	\$158,225 Remodel
Projected cost of building addition (See A10)	
2,000 s.f. – 1,284 s.f. = 716 s.f.	\$327,327 Addition
<span style="border: 1px solid black; padding: 0 5px;"> </span> Design 10%, Const. Contingency 10%, Const. Admin. 8%	\$207,693

**Total Project Cost of REMODEL ADDITION \$949,454**

- **Ratio of remodel:new is \$949,454 : \$808,000 = 1.18X**

The cost of a remodel/addition for this clinic would cost 118% the cost of a new clinic, therefore, a new clinic is recommended for this community.

\* The Area Cost Factor was refined by Estimations, Inc. in July 2001 based on information obtained during the site visit.

\*\* The 90% factor represents economy of scale by completing all renovation work in the same project.

**Appendix A: SPECIFIC DEFICIENCIES LISTING**

Refer to the attached sheets for the listing of the individual deficiencies and the corrective action recommended.

**Appendix B: GENERAL SITE PHOTOGRAPHS**

The following sheets provide additional photographic documentation of the existing building and surroundings.

**Appendix C: ADCED Community Profile**

Refer to the attached document prepared by Alaska Department of Community and Economic Development profiling the community of Shungnak.

**This Report was Prepared by**

**NANA/DOWL, JV**

**with assistance from**

**Architects Alaska**

**and**

**RSA Engineering**

**Under**

**Contract No. ANTHC-98-03**

**Delivery Order 01-D-0558**



**A Division of DOWL**

***Architects Alaska***

*A Professional Corporation*

*Architecture*

*Facility Planning*

*Interior Architecture*

*900 W. 5<sup>th</sup> Ave. Suite 403*

*Anchorage, AK 99501*

*(907) 272-3567*

**R S A Engineering, Inc.**